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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,500	08/20/2001	Timothy P. O'Hagan	TELNP0139USB	7298
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MARK D. SARALINO (GENERAL) RENNER, OTTO, BOISELLE & SKLAR, LLP 1621 EUCLID AVENUE, NINETEENTH FLOOR CLEVELAND, OH 44115-2191			APPIAH, CHARLES NANA	
			ART UNIT	PAPER NUMBER
			2686	

DATE MAILED: 09/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/933,500

Applicant(s)

O'HAGAN ET AL.

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-16 and 19-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16 and 19-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 20, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Amin (6,006,087).

Regarding claim 20, Amin discloses a portable data terminal, comprising: input means (inherent in mobile station 10, designed to operate in accordance with TIA IS-136, col. 3, lines 23-26), an RF transceiver for transmitting data input via the input means to a remote location (inherent in bi-directional transmission and reception between CBS 13 and mobile station 10, see Fig. 1), a memory (storage 110), a speaker (inherent in retrieval and playing of a specified message, col. 5, lines 1-13), an inherent control circuit operatively coupled to the RF transceiver and the speaker, for receiving voice data via the RF transceiver, storing the voice data in the memory as at least one voice mail message (see col. 1, lines 59-67, col. 4, lines 25-44), and for selectively converting the at least one voice mail message to a voice signal which is inherently output through the speaker (see col. 5, lines 8-13), a display for displaying indicia of the at least one voice mail message stored in the memory (see col. 4, lines 45-59), and an input operatively coupled to the control circuit for selecting the at least

one voice mail message to be converted based on the indicia on the display (see col. 4, line 60 to col. 5, line 13).

Regarding 21, Amin further discloses wherein the display presents the indicia on the display as lines of text, with different lines representing voice messages (see Fig. 2, col. 4, lines 44-59).

Regarding claim 22, Amin further discloses where the input controls the position of a cursor shown on the display in relation to lines of text (see col. 4, lines 60-67).

3. Claims 23, 24, 27, 29, 32, 35-37, 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsukamoto et al. (5,128,981).

Regarding claim 23, Tsukamoto discloses a portable data collection network, comprising: (see Figs. 1 and 2), a hardwired backbone (base stations 3, controller 4 and data processing unit 2), a plurality of access points (base stations 3), a plurality of portable data terminals (1), each of the plurality of portable data terminals comprising: input means for inputting data (key 117), an RF transceiver (101, 102), for communicating with at least one device (data processing unit), coupled to backbone network via at least one of the plurality of access points (see Fig. 1), a speaker (160), and a control circuit (111, 110), operatively coupled to the input means, the RF transceiver and the speaker (see col. 12, lines 21-44), for selectively enabling the RF transceiver to transmit data based on data input via the input means and to convert voice data received by the RF transceiver into a voice signal which is output through the speaker (see col. 22, lines 30-46, col. 26, lines 15-30).

Regarding claim 24, Tsukamoto further discloses wherein each of the plurality of portable data terminals further comprises a microphone operatively coupled to the control circuit, the control circuit selectively enabling the RF transceiver to transmit voice data based on an output of the microphone (see col. 12, lines 40-49).

Regarding claim 27, Tsukamoto further discloses wherein the input means is a keypad (see key 117, Fig. 2, alphanumeric input key 159, Fig. 5).

Regarding claim 29, Tsukamoto further discloses wherein the control circuit comprises a memory for storing voice data received via the RF transceiver (see col. 3, lines 40-49).

Regarding claim 32, Tsukamoto further discloses wherein each of the portable data terminals further comprises a microphone (127, Fig. 2), and wherein the control circuit is operatively coupled to the microphone to convert a voice signal output from the microphone to outgoing voice data which is transmitted by the RF transceiver (feature of earphone and microphone serving as handset of telephone when the terminal is used as a telephone, col. 12, lines 40-42).

Regarding claim 35, Tsukamoto further discloses wherein voice data from a first of the portable terminals is transmitted to a second of the portable data terminals via the backbone network (see Fig. 1, col. 5, lines 52-68).

Regarding claim 36, Tsukamoto's Fig. 1, illustrates wherein the voice data from the first of the portable terminals is transmitted to a first of the access points and the second of the portable data terminals receives the voice data transmitted by the first of

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the portable data terminals via second of the access points (specifically when the terminals are used as telephones).

Regarding claim 37, Tsukamoto further discloses wherein the portable data collection network including the backbone network, the plurality of access points and the plurality of portable data terminals are disposed within a facility and facilitate communication among persons remotely located within the facility (see Fig. 1, col. 5, lines 30-65).

Regarding claim 38, Tsukamoto further discloses wherein the RF transceiver facilitates roaming of the portable data terminal among the plurality of access points (see col. 16, lines 1-16).

Regarding claim 39, Tsukamoto further discloses wherein a first of the portable data terminals and a second of the portable data terminal communicate voice data directly with each other (see col. 2, lines 13-24).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-16, 19-21, 22 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al. (5,128,981) in view of Gollnick et al. (5,940,771).

Regarding claim 8, Tsukamoto discloses a portable data collection network, comprising: (see Figs. 1, 2, and 13), a hardwired backbone, a plurality of access points (base stations 3, 31-33), a plurality of portable data terminals (1, 41-43), each of the plurality of portable data terminals comprising: input means for inputting data (key 117), an RF transceiver (101, 102), for communicating with at least one device coupled to the backbone network via at least one of the plurality of access points (see Fig. 1), a speaker (160), a microphone (127) and a control circuit (111, 110), operatively coupled to the input means, the RF transceiver being configured to communicate information in packets and the speaker (see col. 12, lines 21-44), for selectively enabling the RF transceiver to transmit first data based on data input via the input means (see col. 22, lines 30-46, col. 26, lines 15-30) and second data based on a voice signal provided via the microphone (col. 12, lines 40-42) and for converting voice data received by the RF transceiver into a voice signal which is output through the speaker (see col. 22, lines 30-46, col. 26, lines 15-30).

Tsukamoto fails to teach that the RF transceiver communicates information in packets in accordance with a carrier sense access (CSMA) protocol.

The use of CSMA protocol for packet communication in local in wireless networks such as LANs is very well known in the art as taught for example by Gollnick. Gollnick discloses a data collection that supports roaming terminals (see Fig. 18). Gollnick teaches the use of standard CSMA protocol that requires a roaming terminal to listen long enough to identify an apparently clear channel before sending an RFP

frame in order to avoid collisions in a data capture system (see col. 21, lines 34-67, col. 27, lines 1-46).

It would therefore have been obvious to one of ordinary skill in the art to use the CSMA protocol of Gollnick in the communication system of Tsukamoto in order to ensure the capability of waiting for a random period before sensing the status of a communication channel for transmission.

Regarding claims 9 and 12, Tsukamoto further teaches a portable data terminal that includes automatically transitions to a receive telephone call state upon receiving a ring packet from the at least one device via the RF transceiver, the ring packet containing indicia representing a request that the portable terminal enter a conversation state in which voice data may be exchanged between the portable data terminal and the at least one device via the RF transceiver, and wherein the portable data terminal in the receive telephone call state generates at least one of audible ring indicator and a visual ring indicator (see col. 3, lines 50-55, col. 4, lines 19-23, col. 20, lines 8-27).

Regarding claim 10, the combination of Tsukamoto and Gollnick further teach wherein the portable data terminal transitions out of the telephone call state in response to a hang-up packet received from the at least one device via the RF transceiver, the hang-up packet including indicia representing a request that the portable terminal transition out of the receive telephone call state (see Tsukamoto, col. 20, lines 8-20).

Regarding claim 11, Tsukamoto inherently teaches that the portable terminal transitions out of the receive telephone call state in response to an operator input



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representing a request by the operator that the portable terminal transition out of the telephone call state (it is inherent that when a call is terminated and the user hangs up, the on-hook signal indicates a transition from the telephone call state after the communication with ringing mode leading to talking as illustrated in Fig. 20).

Regarding claim 13, Tsukamoto further discloses wherein the at least one device comprises another portable data terminal (see Fig. 13).

Regarding claims 14-15, Tsukamoto further discloses wherein the portable data terminal itself transitions to the conversation state upon receiving an answer packet from the at least one device via the RF transceiver, the answer packet including indicia representing that the at least one device has transitioned to the conversation state (see Fig. 20), wherein the answer packet further comprises voice data which is converted into a voice signal by the control circuit wherein the answer packet further comprises voice data which is converted into a voice signal by the control circuit (see col. 22, lines 30-46, col. 26, lines 15-30).

Regarding claim 16, Tsukamoto's teaching of the key, which is pushed after receiving a communication mode request as illustrated in Fig. 25 (see col. 20, 8-27) meets a push-to-talk input for controlling inputting of the second data via the microphone and the transmitting of the second data via the RF transceiver (see col. 22, lines 30-46).

Regarding claim 26, Tsukamoto meets all limitations as applied to claim 23 above, but fails to explicitly teach wherein the RF transceiver is configured to communicate information in packets in accordance with a CSMA protocol.

The use of CSMA protocol for packet communication in local in wireless networks such as LANs is very well known in the art as taught for example by Gollnick. Gollnick discloses a data collection that supports roaming terminals (see Fig. 18). Gollnick teaches the use of standard CSMA protocol that requires a roaming terminal to listen long enough to identify an apparently clear channel before sending an RFP frame in order to avoid collisions in a data capture system (see col. 21, lines 34-67, col. 27, lines 1-46).

It would therefore have been obvious to one of ordinary skill in the art to use the CSMA protocol of Gollnick in the communication system of Tsukamoto in order to ensure the capability of waiting for a random period before sensing the status of a communication channel for transmission.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al and Gollnick as applied to claim 14 above, and further in view of Rahnema (5,465,253).

Regarding claim 19, Tsukamoto as modified by Gollnick fail to disclose wherein in the conversation state, the voice data is digitized and compressed prior to being included in packets and transmitted by the RF transceiver.

Rahnema discloses a method for transmitting and receiving packetized voice information over a limited number of channels (see abstract). According to Rahnema discloses that traffic channels are organized into blocks of channels and each traffic channel is used to carry one packet worth of compressed digitized voice data which is

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then transmitted at a bit rate of 50 kilobits/second on the assigned traffic channel (see col. 3, line 63 to col. 4, line 4).

It would therefore have been obvious to one of ordinary skill in the art to use the of compressed digitized voice signals of Rahnema with Tsukamoto's communication system in order to prevent the tying up of scant communication resources as taught by Rahnema.

7. Claims 30, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al. as applied to claim 23 above, and further in view of Amin (6,006,087).

Regarding claim 30, Tsukamoto further discloses as illustrated in Fig. 20, voice message capability in a communication with non-ringing, as well voice message receiving in a voice message mode (see Fig. 23) and the memory stores voice data (see col. 16, lines 51-68), and a display for indicating information of communication and information inputted by the input key (see col. 12, lines 27-36) but fails to explicitly teach that the voice data is acquired as multiple voice messages and displaying indicia of multiple voice messages, and means for permitting an operator to select at least one of the multiple voice messages to be output through the speaker based on the displayed indicia.

Amin discloses a system for delivering a voice mail notification to a subscriber of a voice mail system to indicate that a voice mail is waiting in a subscriber mailbox (see abstract). According to Amin, the cellular telephone has a storage device and a display for storing and displaying a plurality of voice mail notifications, with the display

having the capability of showing an index which includes an appended number corresponding to the voice mail and the index of all voice messages is stored within the phone such that the display can be scrolled to indicate the various identities of the stored messages such that a user can retrieve a specific message by highlighting a specific message and pressing a send button positioned on the phone (see col. 1, line 30 to col. 2, line 9, col. 4, lines 44-67).

It would therefore have been obvious to one of ordinary skill in the art to combine the voice mail notification system of Amin with Tsukamoto's communication system in order to forward voice mail message notification indicating that a subscriber has one or more voice mail messages for selective retrieval in an efficient manner as taught by Amin.

Regarding claim 33, the combination of Tsukamoto and Amin further teach wherein a voice data storage device coupled to the backbone network initially stores the voice data intended for one of the portable data terminals (see Amin, Fig. 1, col. 1, lines 43-48, col. 2, lines 35-46), and each portable data terminal periodically polls the voice data storage device in order to prompt the voice data storage device to transmit the voice data to the portable terminal as inherently taught by the mobile station gaining access to a private base station through a registration/network update procedure (see Amin, col. 8, 33-59).

Regarding claim 34, the combination of Tsukamoto and Amin further teach (as taught by Amin) wherein the voice data storage device is a host computer coupled to the backbone network (see voice mail system of Fig. 1).

8. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al as applied to claim 23 above, and further in view of Kim (6,505,040).

Regarding claim 25, Tsukamoto fails to teach wherein the control circuit of each portable data terminal is operative to effect conference calling between at least three different portable terminals.

Kim discloses a method of making a multi-party conference call on a mobile phone (see abstract), which include the feature of automatically inviting multiple parties fro a remote conference by storing the information in a phone beforehand (see col. 1, line 66 to col. 2, line 23, col. 2, lines 40-56).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the automatic conference set up feature of Kim with Tsukamoto's data communication system in order to avoid having to set up a multiparty conference using laborious manual key pressing to connect all parties participating in a conference.

9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto et al as applied to claim 23 above, and further in view of Ghisler et al. (5,539,807).

Regarding claim 28, Tsukamoto fails to teach wherein the input means is a bar code reader for inputting barcode information.

Ghisler discloses a system for enabling a subscriber with a radio terminal to use another terminal that that barcode reader is connected to the terminal for the capability of scanning a telephone number without the need to enter the number with the aid of a keypad (see col. 4, lines 37-48, Fig. 2).

It would therefore have been obvious to one of ordinary skill in the art to provide the barcode reading feature of Ghisler to Tsukamoto's data communication system in order to provide the option of having a barcode reader to input data.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Silberfenig (6,243,594) discloses a combination cellular telephone and sound storage device.

Christ (5,977,913) discloses an apparatus for tracking and locating persons.

Marks (6,553,220) disclose a data network used for placing voice calls over a telephone network.

Swartz et al. (6,687,345) discloses a wireless telephone for transferring data encoded in bar code indicia between a centrally located site and a portable communications terminal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA

September 1, 2004.



**CHARLES APPIAH**  
**PRIMARY EXAMINER**